



**Jeanette M. Van Emon**

Research Chemist; Human Exposure Research Branch  
(Las Vegas, NV), National Exposure Research Laboratory, U.S. EPA

Destined to be a scientist, Jeanette's "inquisitiveness" resulted in her childhood mastery of perfume making and her rise as a noted chemist at the U.S. Environmental Protection Agency. Like her favorite female personalities, Rachel Carson, Amelia Earhart, and Drs. Marie Curie and Rosalyn Yalow, Jeannette Van Emon has been at the forefront of her field. Twice the recipient of the EPA Science Achievement Award in Chemistry (1992 and 1995), EPA's highest award in chemistry which is jointly sponsored by the American Chemical Society, Dr. Van Emon has attained national and international recognition for her work in immunochemistry. She has been instrumental in the development of immunochemical techniques to detect and quantify environmental contaminants. Her research has ranged from the development of tandem immunochemical and instrumental methods for human exposure assessment studies to investigations of the fate and transport of pesticides, toxicity of naturally occurring pesticides, and endocrine disruptors. Dr. Van Emon is a co-inventor on patents for developing specific monoclonal antibodies for use in environmental analysis and is the co-editor of the first book describing the applications of immunochemistry to environmental analysis. Her research publications are frequently used for college courses and technical training in immunochemistry. She continues to foster scientific knowledge by serving as a mentor to several female graduate students and post doctoral researchers. (Photo Credit: D. Gardner)



**Clarice Gaylord**

Senior Science Policy Advisor - Region 9, first Director, Office of Environmental Justice; Office of Enforcement and Compliance Assurance, U.S. EPA

Having entered science out of a personal commitment to "make the world better for mankind" Dr. Gaylord cast aside her childhood dream of becoming a medical investigator to pursue a career as a science administrator. Having trained initially in embryology, Dr. Gaylord began her professional work at the National Institutes of Health and National Cancer Institutes directing scientific programs in the area of tumor immunology, breast cancer and clinical research. Recognized outside of the Institutes for her exceptional leadership skills and gift for developing innovative programs, Dr. Gaylord was recruited by the U.S. EPA to help develop the Agency's research grants program and student intern program. Believing that the Agency offered greater opportunities for advancement of women and minorities, Dr. Gaylord moved to the U.S. EPA hoping to fulfill yet another resolution, to improve opportunities for under served populations. Her exceptional leadership skills, competence, sense of fairness and vision lead to a litany of jobs of increasing responsibility and her selection as the first Director, Office of Environmental Justice. As the first federal agency to recognize the importance of environmental justice and to institutionalize and integrate the principles of fairness and sensitivity to disproportionately affected populations in all of its programs, the U.S. EPA Office of Environmental Justice, represents Dr. Gaylord's greatest contribution. Her program, vision and sense of humanity serve as a model to others and testament that "the role of scientists and engineers in society is to do their best to advance scientific progress in the safest, fairest manner possible." (Photo Credit: Jim Johnson Photography)



**Barbara M. Metzger**

(1940-1996) - Charter Member U.S. EPA, former Director, Environmental Services Division; Region 2, U.S. EPA

A spirited, yet staunch advocate of environmental protection, Barbara Metzger might best be described as the "consummate" environmentalist. A great lover of the outdoors, Barbara committed her career to ensuring that the natural resources she enjoyed, i.e., the beaches, marshes, swamps and streams, would remain intact for future generations. Her more than 25 years of federal service were marked by an array of jobs, each focused on protection of the environment. A charter member of EPA, she entered the Agency as a chemist in Region 2, having worked initially for the Water Pollution Control Administration (U.S. Dept. of Interior). Her managerial acumen and leadership were soon recognized and she was promoted to several management posts before attaining her final rank in 1978 as Director, Environmental Services Division, Region 2. It was in this capacity that she most greatly influenced the Agency and the regulatory community. As a strong proponent of credible science, she pushed for increased peer-review and quality assurance/quality control (QA/QC) of environmental data - leading the development of Q tracks, a database system for the monitoring, analysis and management of data for the Superfund Program. The EPA QA/QC Award was recently named in her honor because of her leadership in this area. It is unfortunate that a woman who contributed so much of her energy to ensuring the public's safety from environmental hazards succumbed in an untimely death due to carbon monoxide poisoning. Despite the tragic nature of her death, her family strives to continue her legacy to promote environmental awareness by advocating the passage of a carbon monoxide bill in her name in the New Jersey legislature. As further tribute to Dr. Metzger, a memorial fund has been established in her honor to support an environmental science scholarship at her alma mater, Douglass College, Rutgers, the State University of New Jersey.



**Maria L. Martinez**

Toxicologist; New Mexico & Federal Facilities Section,  
RCRA Program, Region 6, U.S. EPA

One of ten children, Maria Martinez was the first female on both sides of her family to earn a college degree. The only female in her graduate school class and one of the few Hispanics in the entire Environmental Science Program at the University of North Texas, she was the first Risk Assessor assigned to the RCRA Program. A respected authority in risk assessment, Ms. Martinez holds membership in numerous national workgroups dealing with human health and ecological risk assessment. As a key contributor in the field, she initiated and implemented the development of the EPA Region 6 Human Health Media Specific Screening Levels Database, a system which served as an environmental assessment tool for the EPA Region 6 RCRA and Superfund Programs, as well as State Regulatory Agencies. She has received numerous awards for sustained superior performance and leadership in other risk assessment efforts, yet regards her development of the Region 6 Human Health Screening Levels as one of her greatest accomplishments. She also cites her passion for giving back to the community through community outreach as a significant accomplishment.



**Ellen Swallow Richards**

(1842-1911) - Ecologist, Sanitary Engineer;  
Massachusetts Institute of Technology

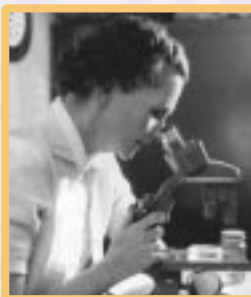
The woman who is said to have "founded ecology" earned an international reputation for her ground-breaking work in environmental and sanitary engineering. She was the first female student to graduate from the Massachusetts Institute of Technology (M.I.T.) in 1873, and later founded the Woman's Laboratory at M.I.T. where she taught chemistry and mineralogy. The first woman elected to the American Institute of Mining and Metallurgical Engineers, Ellen Richards attained great renown for her ability to detect minute quantities of metal ores such as vanadium. A holistic thinker, she realized considerable distinction, having authored more than fifteen books including Industrial Water Analysis and Conservation by Sanitation. A phenomenal accomplishment given her lack of formal recognition by M.I.T. as a recipient of the doctoral degree. As an instructor of Sanitary Chemistry at M.I.T., she established water analysis as a new branch of science, reaching national/international distinction through her extensive work with the Massachusetts Bd. of Health on the analysis of sewage and water supplies. She left behind a legacy for the continuation of scientific study through her advocacy of "domestic science" and education of young women. She helped found the Seaside Laboratory which later became the Marine Biological Laboratory at Woods Hole an institution recognized world-wide for its contributions toward the development of the field of oceanography. (Photo Credit: M.I.T. Museum)



**Florence Bascom**

(1862-1945) - Geologist; U.S. Geological Survey

The first woman and the first geologist to be awarded a Ph.D. from John Hopkins University, Florence Bascom rose to great heights in science despite her initial obscurity (at Hopkins she was required to sit behind a screen during classes because women were not officially allowed to attend classes). She is best remembered for her pioneering work on Maryland's South Mountain in which she introduced the use of petrographic microscopes to the study of rocks and minerals. She taught briefly at Ohio State University before being hired by the United States Geological Survey in 1896 as an assistant geologist. As the first woman scientist hired at USGS, Bascom played a key role in mapping the Mid-Atlantic Piedmont. Always on the cutting edge, Bascom was a key link in the advancement of the field of petrology, serving as teacher to her colleagues at the Survey (she introduced optical crystallography to the staff after having learned the new technique in Heidelberg) and her students at Bryn Mawr. Her development of the geology program at Bryn Mawr proved to be a significant contribution as her 33 years as an educator spawned the development of most women geologists in the early 20th century, the foremost notable being geologists Ida Ogilvie, Julia Gardner, Eleonora Bliss Knopf and Anna Jonas Stose. (Photo Credit: U.S. Geological Survey, Photo No. 684)



**Rachel Carson**

(1907-1964) - Author, Marine Biologist; U.S. Bureau of Fisheries

Few scientists have gained distinction for their ability to provide clarity to the public on scientific issues and concerns. Rachel Carson is one such scientist. Touted for her ability to craft science into prose easily consumed by the public, Carson began her scientific career as a zoology assistant at the Univ. of Maryland. Her brief foray into teaching was followed by employment as a junior aquatic biologist with the Bureau of Fisheries (the first female hired in this capacity), aquatic biologist, information specialist and editor-in-chief for the U.S. Fish and Wildlife Service. Her writings ranged from radio and television scripts to highly technical monographs on the consumption of fish and shellfish as alternate sources of food. Despite her skill in technical writing, she found her greatest satisfaction and success in writing popular pieces on conservation and marine life. Of the many books (Under the Sea-Wind, The Sea Around Us, The Edge of the Sea and Silent Spring) and articles published by Carson, Silent Spring probably had the most pronounced effect on the American public. Considered radical for its time (1962), the text described the ecological implications of the growing use of pesticides and fore-told of the increased problems associated with the advance of chemical technology. The book's lasting mark was the awakening of the environmental conscious of the American public and memorialization of Carson as a scientist of great insight and literary talent (Photo Credit: Brooks Studio and the Rachel Carson History Project)